

## ENGINEERING - COE 2020 - 2021

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# Academic Degrees and Certificates 2020-2021

## Associate of Science in ENGINEERING SCIENCE

### Chemical Engineering - Field of Study Curriculum

FIRST YEAR		SCH
<b>First Semester - Fall</b>		
ENGR 1201	Introduction to Engineering	2
ENGL 1301	Composition I	3
HIST #3## <sup>1</sup>	American History Elective	3
MATH 2413	Calculus I	4
CHEM 1311	General Chemistry I (Lecture)	3
CHEM 1111	General Chemistry I (Lab)	1
<b>Semester Total</b>		<b>16</b>
<b>Second Semester - Spring</b>		
CHEM 1412	General Chemistry II (Lecture & Lab)	4
ENGL 2311	Technical & Business Writing	3
MATH 2414	Calculus II	4
PHYS 2325	University Physics I (Lecture)	3
PHYS 2125	University Physics I (Lab)	1
<b>Semester Total</b>		<b>15</b>
SECOND YEAR		
Chemical Engineering Specialization		
<b>First Semester - Fall</b>		
ENGR 2304	Programming for Engineers	3
MATH 2415	Calculus III	4
CHEM 2323	Organic Chemistry I (Lecture)	3
CHEM 2123	Organic Chemistry I (Lab)	1
PHYS 2326	University Physics II (Lecture)	3
PHYS 2126	University Physics II (Lab)	1
ECON 2301	Principles of Macroeconomics <b>OR</b>	
ECON 2302	Principles of Microeconomics	3
<b>Semester Total</b>		<b>18</b>
<b>Second Semester - Spring</b>		
CHEM 2325	Organic Chemistry II (Lecture)	3
CHEM 2125	Organic Chemistry II (Lab)	1
ENGR 2333	Elementary Chemical Engineering	3
XXXX #3## <sup>1</sup>	Language, Philosophy, & Culture Elective	3
XXXX #1## <sup>2</sup>	Transferable Elective	1
<b>Semester Total</b>		<b>11</b>
<b>Total Minimum Credits for the ASES Degree</b>		<b>60</b>

<sup>1</sup>A list of electives appears in the Core Curriculum section of this catalog.

<sup>2</sup>Consult with an advisor to select an appropriate elective.

Consult with advisor regarding Core completion

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# Academic Degrees and Certificates 2020-2021

## ENGINEERING SCIENCE

### Civil / Environmental Engineering - Field of Study Curriculum

FIRST YEAR		SCH
<b>First Semester - Fall</b>		
ENGR 1201	Introduction to Engineering	2
ENGL 1301	Composition I	3
HIST #3## <sup>1</sup>	American History Elective	3
MATH 2413	Calculus I	4
CHEM 1412	General Chemistry II (Lecture & Lab)	4
<b>Semester Total</b>		<b>16</b>
<b>Second Semester - Spring</b>		
ENGR 1204	Engineering Graphics I	2
ENGL 2311	Technical & Business Writing	3
MATH 2414	Calculus II	4
PHYS 2325	University Physics I (Lecture)	3
PHYS 2125	University Physics I (Lab)	1
ECON 2301	Principles of Macroeconomics <b>OR</b>	
ECON 2302	Principles of Microeconomics	3
<b>Semester Total</b>		<b>16</b>
<b>SECOND YEAR</b>		
<b>Civil Engineering Specialization</b>		
<b>First Semester - Fall</b>		
ENGR 2304	Programming for Engineers	3
ENGR 2301	Engineering Mechanics-Statics	3
MATH 2415	Calculus III	4
PHYS 2326	University Physics II (Lecture)	3
PHYS 2126	University Physics II (Lab)	1
XXXX #3## <sup>1</sup>	Language, Philosophy, & Culture Elective	3
<b>Semester Total</b>		<b>17</b>
<b>Second Semester - Spring</b>		
ENGR 2405	Electrical Circuits I	4
MATH 2320	Differential Equations	3
ENGR 2302	Engineering Mechanics - Dynamics	3
XXXX #1## <sup>2</sup>	Transferable Elective	1
<b>Semester Total</b>		<b>11</b>
<b>Total Minimum Credits for the ASES Degree</b>		<b>60</b>

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# Academic Degrees and Certificates 2020-2021

## ENGINEERING SCIENCE

### Electrical / Computer Engineering - Field of Study Curriculum

FIRST YEAR		SCH
<b>First Semester - Fall</b>		
ENGR 1201	Introduction to Engineering	2
ENGL 1301	Composition I	3
HIST #3## <sup>1</sup>	American History Elective	3
MATH 2413	Calculus I	4
CHEM 1412	General Chemistry II (Lecture & Lab)	4
<b>Semester Total</b>		<b>16</b>
<b>Second Semester - Spring</b>		
ENGR 1204	Engineering Graphics I	2
ENGL 2311	Technical & Business Writing	3
MATH 2414	Calculus II	4
PHYS 2325	University Physics I (Lecture)	3
PHYS 2125	University Physics I (Lab)	1
ECON 2301	Principles of Macroeconomics <b>OR</b>	
ECON 2302	Principles of Microeconomics	3
<b>Semester Total</b>		<b>16</b>
<b>SECOND YEAR</b>		
<b>Electrical Engineering Specialization</b>		
<b>First Semester - Fall</b>		
ENGR 2304	Programming for Engineers	3
ENGR 2301	Engineering Mechanics-Statics	3
MATH 2415	Calculus III	4
PHYS 2326	University Physics II (Lecture)	3
PHYS 2126	University Physics II (Lab)	1
XXXX #3## <sup>1</sup>	Language, Philosophy, & Culture Elective	3
<b>Semester Total</b>		<b>17</b>
<b>Second Semester - Spring</b>		
ENGR 2405	Electrical Circuits I	4
MATH 2320	Differential Equations	3
COSC 1436	Programming Fundamentals I <b>OR</b>	
COSC 1420	C Programming	4
<b>Semester Total</b>		<b>11</b>
<b>Total Minimum Credits for the ASES Degree</b>		<b>60</b>

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# Academic Degrees and Certificates 2020-2021

## ENGINEERING SCIENCE

### Mechanical Engineering - Field of Study Curriculum

FIRST YEAR		SCH
<b>First Semester - Fall</b>		
ENGR 1201	Introduction to Engineering	2
ENGL 1301	Composition I	3
HIST #3## <sup>1</sup>	American History Elective	3
MATH 2413	Calculus I	4
CHEM 1412	General Chemistry I (Lecture & Lab)	4
<b>Semester Total</b>		<b>16</b>
<b>Second Semester - Spring</b>		
ENGR 1204	Engineering Graphics I	2
ENGL 2311	Technical & Business Writing	3
MATH 2414	Calculus II	4
PHYS 2325	University Physics I (Lecture)	3
PHYS 2125	University Physics I (Lab)	1
ECON 2301	Principles of Macroeconomics <b>OR</b>	
ECON 2302	Principles of Microeconomics	3
<b>Semester Total</b>		<b>16</b>
<b>SECOND YEAR</b>		
<b>Mechanical Engineering Specialization</b>		
<b>First Semester - Fall</b>		
ENGR 2304	Programming for Engineers	3
ENGR 2301	Engineering Mechanics-Statics	3
MATH 2415	Calculus III	4
PHYS 2326	University Physics II (Lecture)	3
PHYS 2126	University Physics II (Lab)	1
XXXX #3## <sup>1</sup>	Language, Philosophy, & Culture Elective	3
<b>Semester Total</b>		<b>17</b>
<b>Second Semester - Spring</b>		
ENGR 2405	Electrical Circuits I	4
MATH 2320	Differential Equations	3
ENGR 2302	Engineering Mechanics - Dynamics	3
XXXX #1## <sup>2</sup>	Transferable Elective	1
<b>Semester Total</b>		<b>11</b>
<b>Total Minimum Credits for the ASES Degree</b>		<b>60</b>

<sup>1</sup>A list of electives appears in the Core Curriculum section of this catalog.

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